No 30 I Ep

248 Market
exchanged with 72

Passed March 10th. 1828

An

Inaugural Dissertation

On

Puerperal Fever;

By

William B. Wilson,

Of

Pennsylvania.

Philadelphia

January 12th 1848

To

William P. Dewees M. D.

Adjunct Professor in the University of Pennsylvania;

This short dissertation on a disease, deriving importance from the difficulty of its investigation, as well as from its frequently fatal termination, is inscribed as a testimony of respect for his distinguished exertions for the improvement of Midwifery, by

His very grateful,
and much
Obliged Friend,
The Author.

Puerperal Fever,

Either sporadic or epidemic, occurs at irregular periods after parturition, often within 24 hours, and seldom later than the fourth or fifth day after labour; and takes place frequently where delivery has been remarkably easy, the placenta separating after a proper interval.

The disease is generally ushered in by rigors or slight chills, nausea, oppression of the praecordia, retching, occasional vomiting, pain in the head particularly over the eyebrows, with considerable anxiety of mind; throughout at times these symptoms are slight, or some of them altogether absent: the temper sometimes irritable at others listless or timid, with hysterical symptoms occasionally supervening. As the rigors abate, which are often very short, the skin becomes hot and dry, thirst urgent, the tongue whiter than usual, though in some instances it is tolerably clean and moist about the edges, more especially if vomiting has occurred.

The substance ejected in general is yellow or greenish bile, mixed with the ingesta. The pulse is frequent, seldom under 120, rather full, tense, and vibrating. The countenance assumes at this period an expression of great anxiety, the lips become pale and parched, the cheeks flushed, and in some instances a livid stripe is observed beneath the eyes, which are without animation.

Very soon after the attack commences, pain is felt in the abdomen, at first slight, but increases so as to render the weight of the bedclothes distressing to the patient: a fulness of the belly is attendant on the pain, with hurried respiration. The seat of pain, its situation, and period of accession, vary in different cases. In some it is first felt in the lower part of the abdomen, seemingly in the uterus, occasionally very acute shooting in the direction of Poupart's ligament, and through to the back and loins: again, the pain is felt in the lower ribs, accompanied

to cough. Sometimes a severe pain-like spasm attacks the lumbar region, and extends down the thigh, and toward the bladder and testes.

In the course of the disease the vomiting which on the beginning bore blood, becomes more frequent, so that little or nothing will stay on the stomach, and the conclusion of the case a dark and foul smelling and fetid fluid is thrown up.

A decrease in the secretion of milk commonly takes place soon after the attack; the mammæ become flaccid, and what is remarkable the natural cause to inquire after the welfare of the child, and appears indifferent to their presence, or most interested.

After the full development of the disease the cornea, dark and opaque, is seen in small quantities or entirely disappears. The urine is scanty and high coloured, passes frequently and with some pain, leaving a sediment. The bowels are often constipated and flatulent in the

commencement, and the patients are generally extremely costly. The train of symptoms above enumerated may in a practical sense be considered the first stage of the disease; the only period which affords the practitioner a fair opportunity of saving the life of his patient. The preceding stage is gradual, seldom continues more than 30 hours, and then terminates more or less abruptly, terminating, unarrested, in its course into the second stage, towards the close of which there is evidence of general prostration in the vital and voluntary systems. In the second stage, the pulse becomes quicker, and it ranges between 140 and 160 in a minute, being also soft and compressible, and a few hours before death becomes tremulous, irregular, and extremely rapid. The increase of temperature and dryness of the skin, continues until the commencement of the third stage, when the patient complains

of chillness; the eyes become dull, the pupils dilate, and a downy perspiration sometimes appears on the face and forehead; the abdomen becomes gradually more free from pain, likewise being more distended; the pulse at this period is less more numerous. The tongue is generally brown, sometimes black and parched, although appearing blunting as also, more frequent, and distressing in this stage, and the matter ejected has the appearance of coffee grounds. Dark slimy stools ensue, the teeth and gums, and the breath is disagreeable, or stained with mercury.

Most lessening cough often attends the convalescence, the bowels the patient, the breathing becomes more easy and free, and a low diarrhoea sometimes attends the convalescence. Nor age in some the mind continues wandering till within a few minutes of dissolution.

This disease is not uncommon, the lower orders are

days: the danger is [illegible] [illegible] [illegible] [illegible] in [illegible] as the [illegible] or [illegible] attack is later or longer after labour. I think the fatality is increased, all [illegible] [illegible].

Diagnosis.

[illegible] the necessity and the [illegible] of a distinction between this disease, and the [illegible] [illegible] of [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] been, they should be [illegible] [illegible] [illegible] [illegible] distinction will be made at the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], and [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] which clearly [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] Bronchia.* I shall therefore only particularly notice the distinct [illegible] [illegible], [illegible] after the mind in[f]lammation of the

---

* [illegible]

uterus, and that, whenever this part [illegible] [illegible] [illegible] [illegible] [illegible] an [illegible].

The Irruption of teeth, is often attended with [illegible] [illegible] symptoms, such as [illegible] [illegible] [illegible], and [illegible] [illegible] the bowels, and in the same being Contracted to the [illegible] during the [illegible] of [illegible] [illegible] [illegible]; the [illegible] originates and continues in the abdomen, [illegible] in the [illegible] usually are neither [illegible] [illegible] not [illegible] [illegible] [illegible]; and there [illegible] [illegible] [illegible], such [illegible], with a [illegible] [illegible] the commencement, [illegible] than [illegible] [illegible].

In the [illegible] [illegible] [illegible] at times [illegible] [illegible], the condition of the [illegible] [illegible], with the [illegible] [illegible] grinding [illegible] [illegible] [illegible] [illegible] [illegible] case. In the [illegible] [illegible] [illegible] [illegible] [illegible] augments the [illegible], which [illegible] [illegible] and attends with [illegible] derangements in the [illegible] System.

[illegible] may be seen in a [illegible] [illegible] [illegible]

commencement when it may be a matter of speculation. The absence of abdominal tenderness is usually sufficient to distinguish it from puerperal fever. Taking thus cognizance of the secondary cases of milk fever, after labors, by sterility, and chlorosis, we will now proceed to distinguishing from true puerperal fever; I shall continue to bear the consideration of the disease itself in order to describe more fully its character.

This fever, especially when occurring under an epidemic form, does not always run through the whole, which is seen in the instances to the contrary. Its origin is at times concealed, and the progress of abdominal inflammation, masked by an irritative language, and a diminution of sensibility in the entire nervous system. Yet, even here the disease may often be detected by the very great frequency of pulse, quickness of respiration, tympanitic distention, and by the reduction of pain from

the application of pressure to the abdomen, where none had been previously felt or complained of by the patient. In some the pain in the abdomen is tender only, while there is considerable cerebral uneasiness after the attack for several days but here the vomiting is more frequent, the abdomen tender and fuller, and the stomach more flatulent than natural. Sometimes, from slight inflammation of the brain and strict manner a somnolent state of the system takes place, producing considerable embarrassment to the practitioner, for on pressing his hands on any part of the patient the same uneasiness is produced as when placed on the abdomen, where he concludes diagnostic of inflammation. But if the patient should be lying on his back, with his feet drawn upward and pain should be felt by his suddenly extending them, if the head should be heavy, the pulse frequent, the stomach flatulent and irritable, it may be

presumed that abdominal inflammation exists.

These two opposite states of the nervous system occasionally occur in practice, one in which the sensibility is diminished, the other when it is increased, requires of the medical examiner an order to avoid error as to the actual condition of the abdominal viscera, due care in the examination.

Concerning the state of the lochia the most contradictory opinions have been held by different authors, but the evidence of Armstrong with other minute writers on this subject, goes to disprove the assertion of the distinguished doctor Hamilton of Edinburgh, who says the lochia is not suppressed in cases of true puerperal fever.

Prognosis.

This disease has always been considered one of the most formidable, and its sequelæ have much more serious and fatal, than are the mere sequelæ, arising

to our better acquaintance with its pathology, and more
treatment. Yet now in the most severe cases, the first
24 hours after its invasion are scarcely to be trifled with
and hesitation, no human efforts can afterwards alone
in the contest on the other hand, these important moments
to seize without delay, and an active treatment
hardly pursued, in any instance, can alone prevent
irremediable termination. Let the physician should be
guarded against unnecessary alarm when the patient
is in a hideous, or even sometimes accompanied
the pulse, for such are to be in diseases measures, prove
unavailing.

Doctor Foster observes that there is often a remission
remission about 24 hours after the attack, and some
time after the fever and under such an appearance
delusive, the disease sometimes takes
advantage, which it towards return, with redoubled
violence. In most cases which prove fatal the pain
gradually abates, through time, remission a sudden

transition from the greatest suffering to the most perfect ease: when this takes place with a cold clammy skin, and a small rapid pulse, there is no hope.

In some instances the patient complains but little until the opening of the consciousness diminished sensibility; this seldom occurs. The loss of sensibility is also an unfavourable symptom. Mental derangement with a severe uncommon manner, often occurs, an ominous complication. Constant sighing, pain and tightness of the chest, tossing of the hands, incoherent delirium, muttering and shrieking, with strange imaginary sounds, are omens of the unfavourable symptoms.

The various organic derangements sometimes take place in the brain, which ought to be remembered when viewing a prognosis; either after the disease has existed a long time; these are also to be much feared if they occur after this period.

Priapism frequently happens that, after copious venesection, the patient becomes, first, dull, drowsy,

but these symptoms are not alarming if the operation has been opportunely performed, for they will gradually give way to warmth and moisture, succeeded with reduction of vascular action. But, instead of this, the cancer has been evolved in the very last stage of excitement, and these symptoms continue, with remittent fever and a weak vacillating pulse; nothing can be more dangerous.

If diarrhœa occurs in the last stage of disease, must be considered as inevitable consequence, and should not be restrained; but if it takes place in the early stages, it is to be dreaded as an indication of much less recovery.

In giving a prognosis in this disease, we must be governed principally by the state of the skin, respiration, urine, and stomach. When the breathing is difficult and frequent, when the pulse becomes very weak and fluctuating, and amounts to 160 in a minute, when there is an increase of abdominal

distension, with frequent vomiting of a liquid resembling coffee-grounds, repeated rigors, and a cold clammy skin, the case may be considered fatal. But, on the contrary, should the respiration grow more easy, slow and full, the pulse more natural, the stomach tolerable so as to retain what is given, and the bowels continue copious, with a diminution of the abdomen and less pain, with a warm moist skin, and a clear tongue, a change, the lochia are secreted, milk, we may predict a favourable issue; we may also anticipate a favourable result if the patient's pulse can be kept under 120 during the first week of the attack, provided the respiration be not much disturbed. But if the pulse be quick after the abdominal symptoms have disappeared, with running excoriations, deep suppuration and tedious healing &c.

Secondary diseases are not uncommon, but much more frequent in those whose recovery has been protracted, and where the depleting means have not been carried to a sufficient extent.

(3) Seat of the Disease and its Proximate Cause

In an attempt to minute examination has been made in the bodies of those who died of the disease, we recorded the evidence of Colin Calhoun Clark, and I use the Commission examine to render the most unmistakable evidence of inflamed condition of some of the internal of the abdomen at the time of the disease, the small intestines, in which but in the rectum, the peritoneum, and mind was not affected by non-inflammatory conditions of the various organs.

In a wounded man, Colin Clark died from the disease, in a fatal manner, the disease, in fatal, and was in the hospital. The disease, in the case of the wounded, was the result of an inflammatory condition in the intestines and in the other organs. As the evidence which has been made to have been taken, was a thorough inflammation, not indeed been observed in all cases, in some cases the disease appeared following the effect of fatal, and the condition of the other organs.

[illegible]

Prevention

When this has been allowed as an evidence (for, if it takes place in the intestines Cowbay) it always [illegible] in those cases where children are object of attack, and in fact, as an isolating cause it should be allayed as soon as possible. The greatest address will therefore be required in instructing them with confidence, in one manner, the [illegible] A constipated state of the bowels must be avoided. Stimulants are in excess and should be forbidden. Under an attack of this, we should be [illegible]. It would be best to give a dose of castor oil, or else a gentle aperient, to be taken [illegible] and the child must not [illegible] from the [illegible] for [illegible].

Small in London, this, moreover the remedy that we best adapted to its different stages. In the first stage the treatment consists in bloodletting, & indeed we may say, bloodletting. The efficacy of this remedy has been disputed by some able writers, but the rules we have laid down of the lancet, is now considered, by most practitioners of eminence, to be indispensable. The quantity of blood to be drawn at a time, will vary very much in different cases, in some a few ounces will produce a sensible impression, and here the operation must be repeated, so soon as reaction becomes fully established, until the wished effect is attained, but not at a time already been done.

Dr. Armstrong observes in his treatise on typhus fever, that when there is no inflammation, it is not probable, that the patient will be benefited by bleeding, the results of his observations to x. in Medical Transactions, the first stage, are to the effects produced, and it may also be stated as a practical rule of the first importance in bloodletting,

[illegible] indeed and not the quantity drawn which is regulated usually by the effect on the pulse, in the stage of convalescence, [illegible] have [illegible] long, may the use of the lancet be in the [illegible] certain patients [illegible] and decisive bleeding will be found quite different with the use of narcotics, in which the [illegible] may be required, and there and [illegible] where the operation must be [illegible] to [illegible]. The local abstraction of blood will sometimes be found extremely beneficial and should not be omitted.

Emetics. These have been recommended by some authors as the most effectual means of arresting the progress of this fever, and it has no doubt of their great utility in some cases as auxiliaries to bleeding, but as they are very debilitating remedies and require to be given the patient to be of much benefit, I cannot think they are entitled to that preference which has been given them.

[illegible]

and to derive the greatest advantage from them they must be early exhibited and steadily pursued as long as the pain and distension of the abdomen exist, with quick pulse, and offensive stools. The particular purgatives to be used and the frequency of their repetition, can only be determined by the circumstances requiring their exhibition. If from torpor of the bowels or extreme nausea the actions of these agents are prevented, an enema will often produce the happiest effects.

Blisters. These have been considered doubtful remedies, and as they are very distressing as well as inconvenient I think they might be generally dispensed with, without much detriment to the patient but when they are employed they must be preceded by evacuations.

Treatment in the Second Stage

When we have evidence that the inflammatory is about to be succeeded by the second stage, the lancet must be abandoned and every thing that has a tendency to excite should be excluded such as light, noise, company &c. Animal heat suffers a diminution in this period of the disease, requiring the temperature of the room

and covering of the patient to be warmer. The extremities are also liable to become cold an equilibrium of heat must therefore be maintained, by the application of warm bricks or bottles of hot water to them. The diet should be light, consisting of barley-water, rice-water, rennet whey &c. Strong coffee is often very grateful and sits well on the stomach and may be administered freely, especially if vomiting be troublesome. The depletion by the bowels must be continued but not to the same extent as in the earlier stage of the disease. An eminent writer says that "When the abdomen is tympanic 2 or 3 drachms of the oil of turpentine combined with a dose of castor oil, will often diminish it in a very satisfactory manner."

Treatment in the Final Stage

As the case now may be considered nearly hopeless, it is our duty to render the unhappy victim all the comfort in our power, anything therefore that will contribute to this, should be resorted to, and opiates, stimulants and cordials may now be freely given.